

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended): A plasma buildup method for building up an optical fiber preform (2), ~~in which, comprising the following steps:~~

providing a plasma torch having an outlet nozzle adjacent to a primary preform, wherein an interaction zone is defined between the outlet nozzle and the primary preform;

feeding the plasma torch with a plasma-generating gas in the presence of a silica-based material so as to deposit a buildup material is deposited on a on the primary preform (2) for building up by means of a plasma torch (3) fed with plasma-generating gas and in the presence of a silica-based material; and

introducing ~~an~~ ~~in which at least one~~ reducing element into the interaction zone is introduced upstream from said primary preform (2), the reducing element being suitable for reacting to induce reduction of the nitrogen oxides produced by interaction between nitrogen and oxygen in the presence of the plasma generated by the torch.

2. (Currently Amended): A method according to claim 1, ~~in which~~ wherein the at least one of the reducing elements reducing element is introduced in the gaseous state.

3. (Currently Amended): A method according to claim 2, ~~in which~~ further comprising a step of introducing an other reducing element into the plasma torch, -said

~~other~~gaseous reducing element ~~constituting~~constitutes at least a portion of said plasma-generating gas.

4. (Currently Amended): A method according to claim ~~1~~2, ~~in which~~wherein said gaseous reducing element is selected from the group ~~comprising at least~~consisting of: hydrogen; ammonia; carbon monoxide; and light hydrocarbons, ~~in particular methane, ethane, propane, and butane.~~

5. (Currently Amended): A method according to claim 1, ~~in which~~wherein ~~the at least one of the reducing elements~~reducing element is introduced in ~~the~~a solid state.

6. (Currently Amended): A method according to claim 5, ~~in which~~wherein said solid reducing element is selected from the group ~~comprising at least~~consisting of: urea, and ammonium fluoride.

7. (Currently Amended) A method according to claim 1, ~~in which~~further comprising a step of introducing an other reducing element ~~at least one of said reducing elements is introduced~~ into said plasma torch ~~(3)~~ upstream from an outlet nozzle ~~(7)~~.

8. (Currently Amended) A method according to claim 7, ~~in which~~wherein said other reducing element is introduced into a central zone ~~(10)~~ of the plasma torch ~~(3)~~ in which said plasma-generating gas flows.

9. (Currently Amended) A method according to claim 8, ~~in which~~wherein said other reducing element is introduced into said central zone (10)-substantially simultaneously with said plasma-generating gas.

10. (Currently Amended) A method according to claim 7, ~~in which~~wherein said other reducing element is introduced to ~~the~~a periphery (11)-of said central zone (10)-of the plasma torch-~~(3)~~.

11. (Currently Amended) A method according to claim 1, wherein said other reducing element ~~in which at least one of said reducing elements~~ is introduced into said plasma torch ~~(3)~~ at an end of said outlet nozzle-~~(7)~~.

12. (Currently Amended) A method according to claim 11, ~~in which~~wherein said other reducing element is introduced to ~~the~~a periphery of said end of the outlet nozzle ~~(7)~~-at at least one location.

13. (Canceled).

14. (Withdrawn) Plasma buildup apparatus (1) for building up an optical fiber preform (2), the apparatus comprising a plasma torch (3) fed with a plasma-generating gas by primary feed means (5) and arranged to enable a buildup material to be deposited on a primary preform (2) for building up in the presence of a silica-based material, and in which secondary feed means (9) are arranged to introduce at least one reducing element upstream from said

primary preform (2), the reducing element being suitable for reacting to induce reduction of the nitrogen oxides produced by interaction between nitrogen and oxygen in the presence of the plasma generated by the torch.

15. (Withdrawn) Apparatus according to claim 14, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce at least one of said reducing elements into the inside of said plasma torch, upstream from an outlet nozzle (7).

16. (Withdrawn) Apparatus according to claim 15, in which said secondary feed means (9) are arranged to introduce said reducing element into a central zone (10) of the plasma torch (3) in which said plasma-generating gas flows.

17. (Withdrawn) Apparatus according to claim 14, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce said reducing element to the periphery (11) of said central zone (10) of the plasma torch (3).

18. (Withdrawn) Apparatus according to claim 14, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce at least one of said reducing elements at an end of an outlet nozzle (7) of said plasma torch (3).

19. (Withdrawn) Apparatus according to claim 18, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce said reducing element to the periphery of said end of the outlet nozzle (7), at at least one location.

20. (Withdrawn) Apparatus according to claim 14, in which said secondary feed means (9) are coupled to said plasma torch (3) and arranged to introduce at least one of said reducing elements into at least one location of an interaction zone (8) extending between said outlet nozzle (7) of the plasma torch (3) and said primary preform (2).